Attachment A – Riverdale Road Model Comparison

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MEMORANDUM

To: Vince Izzo, HDR
From: Matt Riffkin, InterPlan Co.
Date: December 26, 2006
Subject: ***Riverdale Road Model Version Comparison***

At your request, InterPlan has reviewed the traffic volume forecasts in the Riverdale Road Environmental Impact Statement (provided by you in draft on December 21, 2006) and compared those to more recent forecasts from the present WFRC model version. As you know, the EIS volumes were based on a travel demand model version from the year 2002. The travel model has undergone several revisions since this point and the WFRC endorses model versions 4.2 and 5.0 for applications in environmental analyses. The latest model, version 5.0, includes revisions to demographic forecasts consistent with those published by the Governor's Office of Planning and Budget, revised mode choice assumptions, and a large scale revision to the trip distribution of work trips making distribution sensitive to both time and cost constraints. Most of these revisions are not major concerns of the Riverdale Road analysis.

Table 1 compares the Average Daily Traffic results as published in the existing EIS with those released directly from the travel demand model version 5.0 of the WFRC (and MAG) present Long Range Transportation Plan. According to Table 1, travel model volumes are fairly consistent from a planning standpoint, but have nonetheless increased by upwards of 16 percent in several areas.

Table 1 Daily Volume Comparison

	1900 West to I-15	I-15 to I-84	I-84 to 1050 West	1050 West to Wall Ave.	Wall Ave. to Wash. Blvd.
2002 EIS Based Model Forecasts	33,400	48,000	53,100	57,300	25,900
2006 WFRC Ver. 5.0 Model Forecasts	30,800	55,700	55,300	64,800	30,200
Percent Change	-8%	16%	4%	13%	16%

Note: Model Version 5.0 results reflect raw results without model validation or local area changes.

Given this volume increase, a further review of critical intersections of the Riverdale Road EIS was performed. According to the EIS, several intersections of the recommended build alternative result in a maximum acceptable level of service D. Since the Purpose and Need of the EIS references a capacity need of achieving a level of service D or better at all intersections, two of the projected highest volume intersections were reviewed in greater detail to ensure that a level of service D is maintained with these higher volumes resulting from the new travel model.

Table 2 summarizes the average intersection delay and level of service according to assumptions consistent with the Highway Capacity Manual (2000). The new model factor referred to in Table 2 includes an average increase of 13 percent volume increase on all legs of the subject intersection, consistent with the volume increase shown in Table 1. Based on the results of Table 2, it can reasonably be expected that the level of service results for all alternatives documented in the Riverdale Road EIS would remain relatively unchanged as a result of new modeling using the latest WFRC travel demand model version 5.0.

Table 2 Delay and Level of Service Analysis

Intersection	Delay (seconds)	Level of Service
1050 West EIS Volumes	40	D
1050 West New Model Factor	40	D
300 West EIS Volumes	45	D
300 West New Model Factor	52	D

Note: Delay and level of service estimated using consistent (150 second) cycle lengths and geometry as presented in the EIS. Intersection offsets and other traffic engineering details were not adjusted in this analysis commensurate with the level of analysis provided in the EIS.

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